



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,546	01/25/2002	Alfred Ebbinghaus	02-139	3046

7590 10-14-2004

Gregory P. LaPointe  
Bachman & LaPointe, P.C.  
900 Chapel Street, Suite 1201  
New Haven, CT 06510-2802

EXAMINER

KUHNS, ALLAN R

ART UNIT PAPER NUMBER

1732

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

### Application No.

10/057,546

### Applicant(s)

EBBINGHAUS, ALFRED

### Examiner

Allan Kuhns

### Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004 and 26 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17, 18 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 19, 20 and 24-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. Claims 19-20 and 24-26 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only (note claim 24). See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiedler et al. (2,979,392) as set forth in the previous Office action in view of Niebylski et al. (3,873,392). Fiedler et al. disclose how to produce foams of desired density at column 4, lines 23-27 but appear not to disclose the production of a metal foam having a density within the range of claim 18. However, Niebylski et al. disclose the utility of producing metal foams having a density within the range of claim 18 at column 2, lines 33-57, particularly column 2, lines 47-48. Given this teaching of Niebylski et al., it would have been obvious to one of ordinary skill in the art to form a metallic foam having a density within the claimed range using the process of Fiedler et al. since Niebylski et al. describes the usefulness of such a metallic foam.

The prior art relied upon discloses or suggests a workable material, as in claim 21, a metal, as in claim 22, and a metal from the group of claim 23.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1732

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17, 18 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Allen et al. (3,087,807). Allen et al. disclose the basic claimed process for a reinforced formed part comprising an at least partially hollow metal external formed part (column 4, lines 52-62) filled at least in part with a metal foam including (1) forming an at least partially hollow metal external formed part, (2) forming a foamable prepreg body (note extruded mass 25) comprising a relatively dense body of metal powder admixed with a foaming agent, (3) locating the prepreg body within the hollow metal external formed part, (4) heating the prepreg body to provide a metal foam material within the hollow formed part by foaming, and (5) simultaneously with the foaming, contacting the metal foam material with at least part of the hollow metal part to bring them into form fit relation, wherein the density of the metal foam is between 0.3 to 5.0 grams per cubic centimeter (column 6, lines 12-13).

Allen et al. teach the use of materials for the external formed part which meet the limitations of claims 21-23 at column 4, lines 52-62).

5. Applicant's arguments filed June 14, 2004 and July 26, 2004 have been fully considered but they are not persuasive. Applicant's arguments are considered to be moot by the examiner based on the revised grounds of rejection introduced in this Office action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-

Art Unit: 1732

1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Allan R. Kuhns*

ALLAN R. KUHN  
PRIMARY EXAMINER AU 1732

10-12-04